

ABSTRACT OF THE DISCLOSURE

The invention concerns an equipment comprising an excitation source (1), means for injecting (2) an excitation signal produced by said source in an 5 ordered bundle (3) of flexible optical fibers, means for analyzing (21, 22) an emitted autofluorescence signal. The invention is characterized in that it comprises in output of the optical fiber bundle (3) an optical head (4) designed to be placed in contact with the biological tissue (6), said optical head being equipped with optical means adapted to cause the excitation signal output from 10 said bundle (3) to converge into a subsurface analyzing zone (5), the same optical fiber(s) used for excitation of said bundle (3) being used for detecting the signal emitted by said subsurface analyzing zone, means (D) placed upstream of the injection means (2) being further provided to separate the wavelength of the excitation signal and the wavelength of the autofluorescence 15 signal.